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AUTHOR Grattan, Mary; Trevvett, Suzanne
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ABSTRACT

This workbook, which is intended for secondary and postsecondary occupational instructors in Virginia who are writing competency-based curricula, explains the process of transforming an occupational task list into a curriculum framework that takes the form of a task analysis. The following topics are covered: developing the instructional task, understanding the task analysis format, organizing by duty area, constructing the task statement, selecting a verb, developing the performance objective, constructing the criterion-reference measure, developing enabling objectives, developing instructional activities, and identifying resources. Answer keys at the back of the workbook make it suitable for both individualized learning and inservice workshops. (MN)

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WRITING COMPETENCY-BASED FRAMEWORKS

A Workbook for Teachers

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WRITING COMPETENCY-BASED FRAMEWORKS

A Workbook for Teachers

Developed by

Mary Grattan
and
Suzanne Trevvett

Virginia Vocational Curriculum and Resource Center
Glen Allen, Virginia

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Introduction

In recent years educators have turned increasingly to business and industry as an important resource for what should be taught in the classroom. Many secondary schools and community colleges are founding their curriculum on current workplace practices by starting with formal occupational analyses. This method ensures that the curriculum focuses on role-relevant competencies.

The emphasis on workplace tasks has been accompanied in many cases by a competency-based education (CBE) approach to teaching. In the CBE classroom students learn to accomplish the actual tasks that they will be expected to perform on the job. When students master one task, they move on to another, working at their own speed. Moreover, competency-based education calls for the use of authentic assessment methods in evaluating student achievement; often actual evaluation tools or methods from the workplace are used in the classroom, and frequently industry standards are used to measure student performance.

Competency-based curriculum in Virginia is traditionally written in the form of a task analysis, in which each job task is made teachable by being placed in a framework that contains some or all of the following components:

- Duty Areas
- Task Statements
- Performance Objectives
- Criterion-Referenced Measures
- Enabling Objectives
- Instructional Activities
- Resources

The resulting framework gives teachers a basic plan of organization, recommended methods and standards for evaluation, and suggested teaching strategies.

Writing Competency-Based Frameworks: A Workbook for Teachers is intended to assist instructors in transforming an occupational task list into a curriculum framework that takes the form of a task analysis. Each section of the workbook presents one component of the curriculum, offering a detailed description, examples, and practice exercises where necessary. Answer keys are placed at the back of the workbook so that the document may be used for individualized learning as well as for inservice workshops.

It is hoped that the workbook will prove helpful to teachers writing curriculum for local school divisions, to secondary and postsecondary instructors developing partnerships, and to other educators engaged in writing competency-based curriculum.

Mary C. Grattan
Suzanne B. Trevvett
Writer-Editors

Developing The Instructional Task

The starting point for developing a competency-based curriculum is a task list, usually a list obtained through an occupational analysis. The occupational analysis involves querying expert workers in a specific occupation to determine information such as

- what tasks they perform on the job
- what equipment and tools are used to perform these tasks
- what trends or advances in technology might have an impact on their jobs.

Various methods are used to perform an occupational analysis, some much more extensive than others, but one result common to them all is a worker task list. Quite often educators find that the worker task list contains complex tasks that must be converted into teaching tasks. Embedded within the worker task are the knowledge, skills, and attitudes needed to perform the task. To convert the worker task into an instructional task, the writer may need to break the worker task into several teachable tasks.

For example, a panel of brick masons stated one of their job tasks as "Lay bottom of a fireplace." Embedded within this task are elements that reflect the domains of learning: cognitive, psychomotor, and affective. The task involves

- an understanding of building codes and regulations regarding fire safety (cognitive--knowledge)
- dry bonding the front, sides, and rear of the fireplace (psychomotor--skill)
- finishing the joints (psychomotor and affective--attitude).

In finishing the joints, although the student is performing a psychomotor skill, the result of this skill will also reflect the student's pride in his/her work and attitude toward a quality effort.

In another example, a panel of executive secretaries and administrative assistants identified "Handle banking transactions" as one of their job tasks. Curriculum writers converted this worker task into the following teaching tasks:

- Identify types of banking records.
- Prepare deposits.
- Reconcile a checking statement.

Finally, a panel of drafters stated as one of their job tasks "Read blueprints." Embedded within this task is a knowledge of signs and symbols, an understanding of scale measurements, an application of the alphabet of lines, the interpretation of a title block, and an appreciation for the need for precision, among a number of other considerations. Some of these elements will become instructional tasks and others, enabling objectives. One possible breakdown would be

Instructional Tasks

- Determine functions of lines, based on alphabet of line.
- Interpret signs and symbols.
- Identify the components of a title block.

Enabling Objectives

- Calculate true dimensions based on a scale measurement.
- Describe reasons for precision in blueprint reading.

By deconstructing the worker tasks, the curriculum writer begins with a strong instructional task list needed for developing a task analysis. Depending on the source of the occupational task analysis, teachers may want to have their local advisory committees validate either the occupational task list, the instructional task list, or both. Close cooperation with local business and industry representatives also helps teachers provide instruction in on-the-job settings or through realistic classroom simulations.

Understanding the Task Analysis Format

The task analysis forms the heart of the CBE curriculum. The task analysis is the process of determining components of the curriculum related to task instruction:

- performance objective
- criterion-referenced measure
- enabling objectives
- instructional strategies
- resources.

Traditionally, a standard format is used to express the results of the task analysis. The sample below is one illustration.

Sample 1: Components of the Task Analysis Page Defined

DUTY AREA

1. Represents a category of job responsibilities, a grouping of similar tasks

TASK/COMPETENCY

1.1 Describes a measurable item of knowledge, skill, or behavior related to the occupational area

PERFORMANCE OBJECTIVE

P1.1 Explains what the student must do to demonstrate that he or she has mastered this task/competency. Tells the student

a. under what conditions the performance will take place
b. exactly what performance is required
c. how well the student must perform as a minimum standard.

CRITERION-REFERENCED MEASURE

C1.1 Tells how the student performance will be assessed

ENABLING OBJECTIVES

Offers suggested steps leading to mastery of the performance objective, including

1. subskills
2. related skills
3. supporting concepts
4. related knowledge
5. theory behind a psychomotor skill
6. reinforcement of prior learning
7. parts of the performance required

(continued)

INSTRUCTIONAL ACTIVITIES

Presents suggested assignments contributing to the student's mastery, including such activities as

1. group project (research, site visit)
2. individual project (research, site visit, model)
3. written work (reports, charts, portfolio)
4. oral work (reports, panels)
5. critical thinking activities (case study, role-play)
6. demonstrations/simulation
7. guest speakers with student preparation/response
8. audiovisual presentations with student critique
9. visual presentations (bulletin boards, posters, print-outs, video, multimedia show)

RESOURCES

Lists a variety of aids for teaching the task

Audiovisuals: nonprint media useful in teaching the task

References: print material useful in teaching the task

Organizing by Duty Area

A task list is traditionally organized by duty areas, which are the major classifications of activities involved in performing a job. Each duty area is a collection of tasks related to a major activity. Duty areas are generally expressed as gerunds, using the *-ing* form of the verb. This form is evident in the following list of sample duty areas for the occupation of **psychiatric aide**:

- Demonstrating intervention techniques
- Planning and administering patient care
- Assisting patients with rehabilitation
- Developing communication and human relations skills
- Fulfilling environmental and legal responsibilities.

Sample duty areas for the occupation of **fish producer** include

- Selecting the type of fish operation
- Constructing ponds
- Maintaining fish cages
- Stocking fish
- Feeding fish
- Harvesting fish
- Marketing fish.

Each of the above duty areas represents one category of the psychiatric aide's or the fish producer's workload.

Constructing the Task Statement

Tasks

A task statement describes a measurable item of knowledge, skill, or behavior that constitutes a logical and necessary step in the performance of a duty. Related tasks are grouped into a duty area.

The tasks being performed should consist of two or more steps that can be accomplished in a short period of time. For example, the task "Collect soil samples" includes the substeps of identifying the locations from which to collect the sample, collecting the soil, mixing the soil taken from the various locations, and labeling the sample.

Avoid writing tasks that are too specific--statements that are actually substeps such as "labeling the sample" noted above. Conversely, avoid tasks that are too general or too broad. Such tasks can usually be broken down into many subskills, each of which, in turn, has substeps. For example, a task such as "Describe labor laws" could include federal, state, and local legislation as well as concepts associated with wages, overtime, unemployment, and worker's compensation.

Elements of a Task Statement

All task statements contain two essential elements: a verb and its object(s).

Verb + Object (s)

Give a manicure.

Disinfect tools and equipment.

Task statements may also contain modifiers.

Verb + (Modifiers) + Object

Clean (air) filters.

Verb + Object + (Modifiers)

Plan layout (of a television studio).

Writing Tasks

1. Begin with an action verb. Task statements should contain only one verb. In some instances the nature of the task necessitates the use of more than one verb; however, this use should be the exception. If more than one verb seems needed, consider the following:

   a. **Is one verb actually a subskill of another verb?**

   > **Example:** List and explain sources of groundwater pollution.
   >
   > ***Explain*** involves more complex cognitive processes than ***list***. If the student is expected to explain, then the concept of listing should be incorporated in the explanation. Determine the appropriate cognitive level and select the verb that corresponds to that level.

   b. **Are the verbs steps in a process? Will a different verb express the totality of the two or three verbs used to indicate this process?**

   > **Example 1:** Collect and file job advertisements.
   >
   > The acts of collecting and filing could be combined by stating "***Compile*** job advertisements."
   >
   > **Example 2:** Admit, transfer, and discharge patient.
   >
   > These three procedures involve many of the same skills and could be expressed collectively by stating "***Implement*** admission, transfer, and discharge procedures."

   c. **Are two verbs actually needed?**

   > **Example:** Set and clear tables.
   >
   > In some instances, the writer may believe that more than one verb is necessary to convey the precise nature of the task.

2. Avoid modifiers that indicate values (e.g., effectively, proper) or degree (e.g., quickly, thoroughly). Develop task statements under the assumption that all tasks will be taught to be performed effectively, efficiently, accurately, completely, and so forth.

> **Example 1:** Complete application form ~~accurately.~~
>
> **Example 2:** Demonstrate ~~proper~~ techniques for lifting the patient.

3. Be wary of statements that masquerade as tasks. Statements may begin with a verb, contain an object, and appear to meet the criteria described, but in reality they are nonterminal competencies, usually reflecting the means to an end, not the end itself.

> **Example 1:** Operate copier.
>
> Operating the copier is a means to an end; the purpose is to make copies, not run the machine. Scrutinize tasks that indicate equipment operation or use of . Usually these statements reflect efforts in the performance of a task.
>
> **Example 2:** Use medical terminology.
>
> Health workers, as well as workers in a variety of other fields, use a specialized and often highly technical vocabulary. However, use of vocabulary is not an end in itself but rather an extremely important subskill taught within the context of the task being performed.
>
> **Example 3:** Make a bulletin board.
>
> Unless making a bulletin board is an actual task performed by incumbent workers in the occupation under study (such as a Teacher's Aide), this statement reflects an instructional method. Teachers have long used this form of activity for a variety of purposes including those directed toward self-expression, originality, creativity, etc. Although such an effort might be an excellent means of assessing student understanding, normally it should not be viewed as a task statement.

Selecting a Verb

Because the task statement is the essential element in competency-based instruction, the verb, or action word, is the key element in writing a task statement. Choosing the most appropriate verb can be more difficult than it sounds, but a few pointers should help:

- When choosing a verb, consider the various domains of learning. Decide whether the task reflects cognitive, affective, or psychomotor performance. If cognitive, select verbs that relate to understanding (e.g., *explain, predict, revise, analyze, interpret,* etc.). If affective, choose verbs conveying values, feelings, or attitudes (e.g., *assist, justify, adhere, listen, question, compare,* etc.). If psychomotor, use verbs denoting skill application (e.g., *bake, bandage, build, drill, heat, manipulate, sew, sketch, weigh,* etc.).

- Consider also the place of the task in the hierarchy of learning. Determine the level of verb needed. A lower level verb might indicate recognition (e.g., *identify, list, describe*) or response (e.g., *answer, conform, follow*). A higher level verb would likely convey analysis, organization, or perhaps value judgment (e.g., *differentiate, modify, evaluate*).

- The use of certain verbs makes the task very difficult to measure or evaluate. For this reason, words such as *understand, recognize,* and *discuss* are best avoided. Experienced teachers have an appreciation for how difficult it is to evaluate student participation in a class discussion. Substituting a verb such as *identify, describe,* or *explain* in the task statement reduces problems with assessment.

- Some verbs--such as *define* and *match*--are appropriately used in enablers (see p. 27) and instructional activities (see p. 29). But these verbs generally do not belong in task statements, because they involve the learning of terminology complementary to the task, not the task itself.

Many verbs are special terms associated with a business or industry. These come easily to the practitioner's or specialized teacher's mind. Other verbs are more generic and apply to a wide variety of occupations. When one is composing a long series of task statements, verbs in this second group can be annoyingly elusive. The following catalog--although by no means exhaustive--may be helpful in offering a quick solution or in jogging the memory for more appropriate verbs not on the list at all. The verbs are presented in broad categories for easy reference.

Verbs Conveying Recognition

describe
enumerate
give examples
identify
label
list
locate
outline
paraphrase
point to
predict
state

Verbs Conveying Application of Concepts

adapt
adhere
apply
carry out
comply
compute
conform
demonstate
dispatch
effect
employ
follow
give
implement
interpret
issue
modify
obtain
perform
practice
prepare
process
relate
select
undertake
use
utilize

Verbs Conveying a Response or Other Communication Skill

advise
answer
assist
author
communicate
compose
convey
correct
display
disseminate
draft
edit
greet
illustrate
inform
listen
post
prepare
present
propose
read
recommend
record
report
solicit
submit
tell
welcome
write

Verbs Conveying Application of Skills

adjust
affix
align
assemble
bend
calibrate
check
clean
collate
connect
cut
dismantle
drill
duplicate
execute
fabricate
fasten
finish
fix
handle
install
lay (out)
lubricate
maintain
manipulate
measure
mend
mix
operate
paint
perform
repair
service
set (up)
sharpen
sketch
solder
sort
stitch
weigh

Verbs Conveying Critical Thinking/Problem Solving/Evaluating

analyze
appraise
assess
calculate
contrast
defend
determine
diagnose
differentiate
discriminate
estimate
evaluate
examine
explore
influence
interpret
judge
justify
plan
prove
qualify
question
research
revise
solve
support
synthesize
test
troubleshoot
verify

Verbs Conveying Organization or Collection

acquire
alter
arrange
assemble
collate
collect
combine
compare
compile
complete
file
gather
integrate
inventory
locate
modify
obtain
order
organize
procure
requisition
secure
select

Verbs Conveying Interpersonal Relationships

administer
assist
conduct
control
cooperate
coordinate
direct
facilitate
follow
greet
help
host
instruct
lead
manage
negotiate
officiate
organize
oversee
participate
preside
regulate
schedule
share
supervise
teach

Verbs Conveying Creativity/Initiative

author
build
change
compose
conceptualize
construct
create
design
develop
devise
draft
draw
edit
establish
formulate
generate
initiate
modify
originate
revise

Analyzing the Task Statement
Worksheet 1

Identify the weaknesses in the following. Revise to reflect accepted specifications, or write "delete" if the statement cannot be revised into a suitable task. (See page 37 for answer key).

1. Discuss the procedure for admitting a patient.

2. Make, receive, and transfer telephone calls accurately and efficiently.

3. Sign checks.

4. Operate cash register.

5. Understand the nutritional needs of preschoolers.

6. Recognize safety hazards.

7. Maintain the suspension, steering, and electrical systems of an automobile.

8. Read and interpret service contracts correctly.

Developing the Performance Objective

The performance objective states what the students must do to demonstrate they have mastered the task. The performance objective is composed of three parts:

- the condition
- the performance
- the standard.

Condition

The **condition** is explained in an introductory phrase used to begin each performance objective. This phrase always starts with "Given." The phrase explains the conditions for performing the task, including specific equipment and material.

Examples of condition:

Given a 35 mm single lens reflex camera and a roll of 35 mm film. . .

Given 10 color-coded resistors. . .
Given instructor-prepared case situations. . .

Given several child care center floor plans and local fire evacuation regulations. . .

Performance

The condition phrase is followed by the **performance**--that is, the task statement itself. There should be little to no variance between the task statement and the performance phrase.

Examples of condition and performance:

(1) **Task** Select wiring methods.

Condition Given switches, associated hardware, and necessary tools and equipment, . . .

Performance . . . select a wiring method for a designated situation.

(2) **Task** Plan activities involving food.

Condition Given instruction in nutrition, food preparation, and the variety of ways cooking and food can be incorporated into the child care center program, . . .

Performance . . . plan activities involving food.

Standard

The **standard** explains the criteria for successful performance; standards must be observable or measurable.

Example of condition, performance, and standard:

Task Make occupied and unoccupied beds.

Condition Given instructor demonstration, a hospital bed, sheets, pillow, and other necessary linens, . . .

Performance . . . make occupied and unoccupied beds.

Standard The corners must be mitered, and the sheets must be tightly fitted and wrinkle free.

The condition and performance are always in the same sentence. The standard may or may not be also included in this first sentence.

Examples of possible ways to express performance objectives:

(1) **Task** Draft simple wills and codicils.

Performance Objective Given sample wills and codicils, pertinent state and federal legal sources, simulated client data, and classroom instruction, draft sample wills and codicils in accordance with the criteria of U. S. and Virginia codes. Documents should be written according to instructor's guidelines.

(2) **Task** Set lintels.

Performance Objective Given trowel, jointer, lintel, plumb rule, and other equipment and supplies, set lintel. Lintel must have a minimum of 8" bearing, must be level without resting on top of frame, and be plumb with the face of the wall.

Constructing the Criterion-Referenced Measure

The criterion-referenced measure (CRM) describes how a student will be evaluated on his/her performance of a task. It describes both (1) the method of evaluation and (2) the level of performance that constitutes task mastery. In early CBE guides, much of the performance objective was repeated in the criterion-referenced measure. The current practice is to abbreviate the CRM to reduce duplication.

Example:

Task	Apply antiembolism elastic stockings.
Performance Objective	Given soap, water, towel, elastic stockings, patient's chart, and physician's orders, apply antiembolism elastic stockings. Stockings must be applied as ordered by physician, cover treatment area, fit snugly and smoothly, and allow for circulation to the treatment area.
CRM	Student demonstration, all items on instructor-prepared checklist rated acceptable

The method of evaluation should be objective. Avoid statements such as "the instructor's satisfaction."

The CRM should be a realistic evaluation measure. Not every task lends itself to a written test or to a demonstration. For example, whereas applying varnish might be evaluated by having the student demonstrate the procedure, a written test would be a more effective method of evaluation for a cognitive task such as "Identify U.S.D.A guidelines for handling meat."

Percentage of accuracy figures included with the CRM should also be realistic. Some tasks must be done with 100% accuracy. Other percentage figures must be considered carefully because often the percentage of accuracy figure is confused with a grade. Possible alternatives include indicating "average or above rating," using industry standards (e.g., ANSI, EEE), and referencing school or program standards.

Some effort should be made to suggest a variety of CRMs, to address a wide range of learning styles (visual, verbal, kinesthetic, etc.). Tests, worksheets, and written reports can be balanced by oral reports, demonstrations, and role plays as well as group work and field experiences.

CRMs should also reinforce a variety of basic skills (e.g., math, communication, problem-solving, etc.). Including such evaluation tools as oral reports, student interviews, role plays, written reports, letters, panel discussions, group projects, analyses of case studies, worksheets for calculations, etc. should accomplish this end.

Listed below are examples of tasks, performance objectives, and CRMs that illustrate the variety of ways task mastery may be evaluated.

Task:	Mark edit logs.
Performance Objective:	Given a tape of raw master footage, a VTR, and a shot log, mark edit log. Edit log must contain scenes, shots, take numbers, notation of take (good/not good) and incue and outcue numbers.
CRM:	Student-produced log, all items rated acceptable on instructor-prepared checklist

Task:	Identify community resources.
Performance Objective:	Given printed and online resources and notes from student interviews, identify community resources. Identification should be made in accordance with instructor's guidelines.
CRM:	Small group presentation rated acceptable based on criteria specified in instructor's guidelines

Task:	Resolve conflicts.
Performance Objective:	Given case situations, sample business policies, and business training videos, resolve conflicts. Demonstration should be performed in accordance with instructor's guidelines.
CRM:	Role-play activity, student participation evaluated as acceptable on instructor-prepared rating form

Task:	Administer medications.
Performance Objective:	Given instructor demonstration, various syringes, topical medications, capsules, disposable gloves, and other supplies, administer medications correctly and safely by interpreting the medication order, preparing and administering the medication, noting client comfort and reaction, and charting the procedures.
CRM:	Instructor-prepared checklist, all items rated acceptable

Task:	Bathe an infant.
Performance Objective:	Given an instructor demonstration, infant tub, washcloth, towel, baby shampoo, mild soap, water at appropriate temperature, and diaper, bathe an infant and/or doll. Instructor's guidelines must be followed, including attention to proper support, constant touch, constant supervision, avoidance of drafts, and maintenance of room temperature.
CRM:	Instructor-prepared checklist, all items rated acceptable

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Task:	Prepare child abuse/neglect reports.
Performance Objective:	Given a list of observed behaviors, definitions, and a simulated situation, prepare a child abuse/neglect report. The report should include information pertinent to the child, including address, age, parents/caretakers, nature of suspected abuse/neglect and evidence, identity of offending person (if known), other pertinent information, and name, address, telephone of reporting adult.
CRM:	Instructor-prepared checklist, rated acceptable

Examining Performance Objectives and Criterion-Referenced Measures
Worksheet 2

Consider the following tasks, and suggest a performance measure and CRM for each. (See page 39 for answer key.)

1. Task: Handle customer complaints.

   PO:

   CRM:

2. Task: Verify battery voltage.

   PO:

   CRM:

3. Task: Compute refunds.

   PO:

   CRM:

4. Task: Purge files.

   PO:

   CRM:

5. Task: Determine mailing rates for letters and parcels.

   PO:

   CRM:

Developing Enabling Objectives

The design of Virginia CBE curriculum guides is based on a one-page format with space provided for listing both enabling objectives and instructional activities without distinguishing between the two elements. However, they are treated separately here to assist writers who wish to use a variation of this format. Either enabling objectives, instructional activities, or both may be included. (See page 33).

Enabling objectives (enablers) are subskills, related skills, supporting concepts, and other components of learning that students study in order to perform the task. Their purpose is to break up the task into digestible bits of learning. Tips for writing enablers follow.

- Write the enabler to the student in the imperative mood (i.e., do this, do that).
- Begin with an active verb. The lists of verbs provided on pages 14-15 as resources for task construction should also be useful in the wording of enablers.
- An enabler may consist of a part (but not all) of the performance objective. For example, if a performance objective requires a student to transplant a sapling, enablers might include selecting a site, identifying the proper times for transplanting, digging a hole in which to place the sapling, determining if and how any wrapping or container should be removed, placing the sapling, and so forth. No enabler would read "transplant sapling."
- When appropriate, incorporate previously performed tasks as enabling objectives to reinforce prior learning.
- An enabler can consist of a step in a procedure, but it is often helpful to construct the objective to show the purpose of the step or the theory behind it (the cognitive and/or the affective element of a psychomotor task). For example, if the task is to balance a checkbook, the first step might be to arrange the cancelled checks in numerical order. An effective enabling objective to illustrate the cognitive element of this step might be to determine checks still outstanding to the account.
- Ensure the meaning of the enabler is clear by providing examples if necessary. Err to the side of specificity rather than write global statements that may be unclear.
- Write out acronyms, abbreviations, or other forms of technical language the first time they are used. For example, a reference to the NEC should be cited as the National Electrical Code (NEC).

Developing Instructional Activities

Instructional activities are group or individual assignments or pursuits that contribute to the student's mastery of an enabler or a task. The instructional activity should be a relatively easy component for the instructor to write, because often it can be based on actual classroom experience of what has worked or not worked in the past.

- As with tasks and enablers, write instructional activities in the imperative mood.
- Address each activity to the instructor, but keep the focus on the student.
- Incorporate multiple teaching methods (auditory, visual, tactile, etc.) to address a variety of student learning styles.
- Incorporate multiple learning situations such as work in pairs or teams, as well as individual work.
- Incorporate a context or purpose within each activity (e.g., explain briefly how a research paper or a video will be used in the classroom, rather than simply saying "Assign a research paper" or "Show a video").
- Include activities involving exposure to the workplace (e.g., field trips, individual student visits or student interviews with incumbent workers, guest presenters from local business/industry, student letters to companies, assignments based on company policies/manuals/forms, assignments that can be judged according to actual industry standards).
- Incorporate activities that reinforce basic skills such as math calculations, measurements, written and oral reports, note-taking, research, keyboarding, problem solving, and critical thinking.

There are an infinite number of possibilities for instructional activities, but just a few examples of instructional activities for a first aid/paramedic curriculum are suggested below.

Task: Assist with automobile accident victims.

Instructional activities:

1. Show a video to initiate a discussion on the variety of injuries caused by automobile accidents.
2. Assign each student a research report on one part of the anatomy involved in the injuries shown in the video.

3. Have students prepare questions on legal issues involved in victim assistance to ask a guest speaker from a local hospital or attorney's office.

4. Organize a student panel presentation on techniques for assisting victims at the scene of the accident.

5. Have students observe and take notes on a simulated administration of first aid to a burn victim, demonstrated by an emergency medical technician and followed up with student demonstrations.

6. Have student teams role play first aid to a victim in shock.

7. Have students prepare a flier for teen-aged drivers on what to do in case of an automobile accident.

8. Have students participate in an online news group on highway safety or first aid.

9. Have students pay individual visits to insurance companies and community agencies to gather information on financial concerns and services related to automobile accident victims.

10. Invite a hospital administrator to present the various forms and other paperwork involved in the performance of emergency medical work. Follow up with students' completion of forms.

N.B. There is no specific worksheet or key for instructional activities because it is so content specific. Instructors might wish to choose a few tasks (representing psychomotor, cognitive, and affective tasks, if possible) from their own field of expertise and try writing a variety of relevant instructional activities.

Identifying Resources

Resources are materials useful in teaching a task. Categories of resources might include the following:

Audiovisuals and other nonprint media

- Videos
- Software simulations
- Audio cassettes
- Slides
- Multimedia presentations
- Models

Print media

- Textbooks
- Handbooks
- Curriculum guides
- Posters
- Business forms
- Policy manuals
- Legal/regulatory guides
- Learning activity packages
- Maps
- Charts.

Order information

Full order information should be included for all recommended resources. In the case of **nonprint media**, it is very important to include all order information:

- Exact title
- Year of publication
- Grade level (if applicable)
- Series (or other) number
- Names, addresses, and telephone numbers of producers/distributors.

In the case of **printed references**, a bibliography in traditional format (e.g., MLA Style Sheet) is necessary to ensure that sources are sufficiently identified, according to

- Title
- Author/editor
- City and date of publication
- Publisher.

Sample Task Analysis Page from a Nursing Guide

DUTY AREA | **COURSE**

2. PROVIDING FOR BASIC HEALTH NEEDS | Health Assistant I (8331)

TASK/COMPETENCY

2.2 Bathe client as prescribed in care plan.

PERFORMANCE OBJECTIVE

P2.2 Given soap, towel, bath thermometer, disposable gloves, and other supplies, bathe client as prescribed in care plan. The type of bath given must be in accordance with specifications in the care plan, and all standard nursing procedures must be observed.

CRITERION-REFERENCED MEASURE

C2.2 Instructor-prepared checklist, all items rated acceptable

ENABLING OBJECTIVES *(Selected samples)*

1. Define bed bath, partial bath, century tub, and shower. *(Subskill: terminology)*
2. Demonstrate the use of a bath thermometer. *(Subskill)*
3. Demonstrate how to give a bed bath. *(Part of performance required)*
4. Describe all safety procedures associated with bathing. *(Related knowledge)*
5. Discuss the importance of providing privacy for the client. *(Supporting concepts)*
6. Demonstrate proper body mechanics. *(Prior task)*
7. Assist client with dressing and undressing. *(Part of performance required)*
8. Describe skin conditions and other observations that should be reported. *(Theory)*
9. List items that should be charted. *(Related skill)*

INSTRUCTIONAL ACTIVITIES *(Selected samples)*

1. Have students prepare small group research projects on common skin conditions observed during client baths.
2. Invite psychology teacher to lead class discussion on the importance of privacy for clients.
3. Have students present a panel discussion on safety procedures associated with bathing.
4. Review with students proper body mechanics for lifting and turning the client.
5. Have students perform a return demonstration of the procedures for giving a bed bath.

RESOURCES

Audiovisuals: *Techniques in Bathing* (video): Medcom.

References: *Being a Nursing Assistant.* Schniedman and others.
Nursing Assistant Task Analysis. Virginia Department of Education.

ANSWER KEYS

Analyzing Task Statements (page 17)
Worksheet 1 - Key

The following are sample responses; other responses may be acceptable as well.

1. Admit a patient.
   Demonstrate admission procedure.

   [Avoid the verb *discuss*.]

2. Handle telephone calls.

   [Combine three verbs into one. Avoid, qualifiers such as *accurately* and *efficiently*; it is assumed that all tasks are performed accurately and efficiently.]

3. Prepare checks.

   [In most occupations, merely signing checks is too narrow to be a task statement.]

4. Handle sales transaction.
   Complete customer purchase.

   [Operating the cash register is not a task itself, but a means to performing a sales transaction. It would be an enabler.]

5. Identify the nutritional needs of preschoolers.
   Explain the nutritional needs of preschoolers.

   [Understanding is very difficult for a teacher to measure objectively. Use *identify* if only recognition is required; use *explain* if a higher order skill is expected of the student.]

6. Locate safety hazards.
   Analyze safety hazards.

   [Recognition is very difficult for a teacher to measure objectively. Use *locate* if only recognition is required; use *analyze* if the task statement requires such a higher order thinking skill.]

7. Troubleshoot the suspension system of an automobile.

   [The original task is much too broad.]

8. Interpret service contracts.

   [Eliminate the hierarchy of verbs; if one can interpret, surely one can read. Eliminate *correctly*, as it is understood that all tasks will be performed correctly.]

Examining Performance Objectives and Criterion-Referenced Measures (page 25) Worksheet 2 - Key

1. **PO:** Given sample company customer service policies, a company training video, and a simulated case of a dissatisfied customer, handle customer complaint in accordance with instructor's guidelines.

   CRM: Student role play, rated acceptable on instructor's rating form

2. **PO:** Given a battery and a voltmeter, verify battery voltage in accordance with industry and instructor's guidelines.

   CRM: Voltage calculated within ± 5% of instructor's measurement

3. **PO:** Given sample case situations and company policy for handling refunds, compute refunds.

   CRM: Calculations completed with 100% accuracy on instructor-prepared worksheet

4. **PO:** Given a directory of electronic files and instructor-provided guidelines for purging specified items, purge files.

   CRM: Student-produced screen, all files purged/retained according to instructor's guidelines

5. **PO:** Given letters and parcels, postal scales, and postal rate chart, determine mailing rates for letters and parcels. Determination of rates must follow instructor's mailing directions.

   CRM: Rates calculated with 100% accuracy according to postal specifications

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